SECTION 5.0

MITIGATION MEASURES

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MITIGATION MEASURES

5.1 INTRODUCTION

The Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) regulations require that mitigation measures be developed for all of a proposed action's effects on the environment where it is feasible to do so (40 (Code of Federal Regulations (CFR) Sections 1502.14(f) and 1502.16(h); CEQ 40 Most Asked Questions, 19a). The NEPA regulations define mitigation as

"...avoiding the impact altogether by not taking a certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; compensating for the impact by replacing or providing substitute resources or environments" (40 CFR Section 1508.20)."

These principles have been applied to guide the conceptual design of the alternatives (described in **Section 2.0**). Where potential effects on the environment were identified in early stages of alternative identification and refinement and in Environmental Impact Statement (EIS) preparation, appropriate changes were made to avoid or minimize them. In addition to the measures incorporated into the design of the alternatives, the following section provides measures to mitigate specific effects identified in the preparation of the EIS or to further reduce the impacts to less than significant levels.

5.2 GEOLOGY AND SOILS

Implementation of the mitigation measures listed below would minimize potential impacts related to soils and geology. These measures are recommended for Alternatives A through F.

A. The Tribe shall comply with the National Pollutant Discharge Elimination System Permit (NPDES) Construction General Permit from the United States Environmental Protection Agency (USEPA) for off-site infrastructure improvements, for construction site runoff during the construction phase in compliance with the Clean Water Act (CWA). A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared, implemented, and maintained throughout the construction phase of the development, consistent with Construction General Permit requirements. The SWPPP shall detail the best management practices (BMPs) to be implemented during construction and post-construction operation of the selected project alternative to reduce

impacts related to soil erosion and water quality. The BMPs shall include, but are not limited to, the following:

- 1. Existing vegetation shall be retained where practicable. To the extent feasible, grading activities shall be limited to the immediate area required for construction and remediation.
- 2. Temporary erosion control measures (such as silt fences, fiber rolls, vegetated swales, a velocity dissipation structure, staked straw bales, temporary re-vegetation, rock bag dams, erosion control blankets, and sediment traps) shall be employed for disturbed areas.
- 3. To the maximum extent feasible, no disturbed surfaces shall be left without erosion control measures in place.
- 4. Construction activities shall be scheduled to minimize land disturbance during peak runoff periods. Soil conservation practices shall be completed during the fall or late winter to reduce erosion during spring runoff.
- 5. Creating construction zones and grading only one area or part of a construction zone at a time shall minimize exposed areas. If practicable during the wet season, grading on a particular zone shall be delayed until protective cover is restored on the previously graded zone.
- 6. Disturbed areas shall be re-vegetated following construction activities.
- 7. Construction area entrances and exits shall be stabilized with large-diameter rock.
- 8. Sediment shall be retained on-site by a system of sediment basins, traps, or other appropriate measures.
- 9. A spill prevention and countermeasure plan shall be developed which identifies proper storage, collection, and disposal measures for potential pollutants (such as fuel, fertilizers, pesticides, etc.) used on-site.
- 10. Petroleum products shall be stored, handled, used, and disposed of properly in accordance with provisions of the CWA [33 United States Code (U.S.C.) 1251 to 1387].
- 11. Construction materials, including topsoil and chemicals, shall be stored, covered, and isolated to prevent runoff losses and contamination of surface and groundwater.
- 12. Fuel and vehicle maintenance areas shall be established away from all drainage courses and designed to control runoff.
- 13. Sanitary facilities shall be provided for construction workers.
- 14. Disposal facilities shall be provided for soil wastes, including excess asphalt during construction and demolition.
- 15. Other potential BMPs include use of wheel wash or rumble strips and sweeping of paved surfaces to remove any and all tracked soil.

- B. Construction workers shall be trained in the proper handling, use, cleanup, and disposal of chemical materials used during construction activities. Appropriate facilities to store and isolate contaminants shall be provided.
- C. Contractors involved in the project shall be trained on the potential environmental damage resulting from soil erosion prior to construction in a pre-construction meeting. Copies of the project's SWPPP shall be distributed at that time. Construction bid packages, contracts, plans, and specifications shall contain language that requires adherence to the SWPPP.

5.3 WATER RESOURCES

5.3.1 WASTEWATER

The following measures are recommended for Alternatives A, B, C, D, and E:

- A. For all on-site treatment options, wastewater shall be fully treated to at least a tertiary level using membrane bioreactor (MBR) technology. The Tribe shall apply for and obtain applicable USEPA permits and approvals prior to operation.
- B. Recycled water, possibly coming from the City of Galt wastewater treatment plant (WWTP), shall be used beneficially to the extent practical, including, but not limited to, landscape irrigation, toilet flushing, and cooling towers, as applicable.
- C. For all on-site treatment options, the on-site WWTP shall be staffed with operators who are qualified to operate the plant safely, effectively, and in compliance with all permit requirements and regulations. The operators shall have qualifications similar to those required by the State Water Resources Control Board Operator Certification Program for municipal wastewater treatment plants.
- D. For all on-site treatment options, installation and calibration of subsurface disposal shall be closely monitored by a responsible engineer, and periodic monitoring shall ensure the spray and subsurface effluent disposal system is operating efficiently.

The following measures are recommended for Alternatives D and E at the Historic Rancheria site:

E. Effluent temperature shall be controlled by storing effluent in tanks and holding ponds to the extent possible without impairing the operation of the wastewater treatment facility. Water shall be treated on-site to USEPA standards prior to discharge into surface waters.

- F. Dechlorination facilities shall be added to the surface water discharge treatment facilities, along with chlorine residual monitors to ensure no significant chlorine residual in the effluent, per the anticipated NPDES permit from the USEPA.
- G. Installation and calibration of subsurface disposal shall be closely monitored by a responsible engineer, and periodic monitoring shall ensure the spray and subsurface effluent disposal system is operating efficiently.

5.3.2 GROUNDWATER

The following measures are recommended for Alternatives A, B, C, D, and E:

- H. If on-site groundwater is used as a water supply, groundwater sampling and analysis shall be performed to determine if treatment is necessary. If treatment is necessary, an on-site water treatment plant shall be constructed to treat drinking water to USEPA standards.
- I. The Tribe shall implement water conservation measures, which may include, but are not limited to use of low flow faucets and showerheads, recycled water for toilets, and voluntary towel re-use by guests in the hotel; use of low-flow faucets, recycled water for toilets, and pressure washers and brooms instead of hoses for cleaning in public areas and the casino; use of garbage disposal on-demand, re-circulating cooling loop for water cooled refrigeration and ice machines where possible, and service of water to customers on request in restaurants; use of recycled and/or gray water for cooling, and use of recycled water for irrigation.

The following measure is recommended for Alternatives D and E:

J. The Tribe shall participate in groundwater recharge. This may consist of the Tribe implementing its own recharge project or participating in a regional project. The project shall be designed to offset excess groundwater pumped from the aquifer for the project alternative selected.

5.4 AIR QUALITY

5.4.1 CONSTRUCTION

As shown in **Table 5-1**, mitigated construction emissions would continue to be less than Council on Environmental Quality (CEQ) Reference Points (CEQ RPs); therefore, the following construction BMPs are recommended for Alternatives A through F:

TABLE 5-1MITIGATED CONSTRUCTION EMISSIONS – CEQ REFERENCE POINT

	Criteria Pollutants						
Alternatives	ROG	NOx	СО	SOx	PM ₁₀	PM _{2.5}	
	tons per year						
Alternative A	4.39	13.34	18.59	0.03	31.02	8.09	
Alternative B	2.77	9.06	10.88	0.022	1.32	0.70	
Alternative C	3.46	4.75	7.41	0.015	0.80	0.80	
Alternative D	4.39	13.34	18.59	0.035	2.99	1.67	
Alternative E	2.77	9.06	10.88	0.022	1.32	0.70	
Alternative F	4.39	13.34	18.59	0.035	2.98	1.67	
CEQ RPs	25	25	N/A	100	N/A	100	
Exceed CEQ RPs	No	No	N/A	No	N/A	No	

Notes: N/A = Not Applicable; CEQ RPs are not applicable due to attainment status

(Refer to **Section 3.4**). Source: CalEEMod, 2010.

A. The following dust suppression measures shall be implemented by the Tribe to control the production of fugitive dust (PM₁₀) and prevent wind erosion of bare and stockpiled soils:

- 1. Spray exposed soil with water or other suppressant twice a day or as needed to suppress dust.
- 2. Minimize dust emissions during transport of fill material or soil by wetting down loads, ensuring adequate freeboard (space from the top of the material to the top of the truck bed) on trucks, and/or covering loads.
- 3. Promptly clean up spills of transported material on public roads.
- 4. Restrict traffic speeds on site to 15 miles per hour to reduce soil disturbance.
- 5. Provide wheel washers to remove soil that would otherwise be carried off site by vehicles to decrease deposition of soil on area roadways.
- 6. Cover dirt, gravel, and debris piles as needed to reduce dust and wind-blown debris.
- 7. Provide education for construction workers regarding incidence, risks, symptoms, treatment, and prevention of Valley Fever.
- B. The following measures shall be implemented by the Tribe to reduce emissions of criteria pollutants, greenhouse gases (GHGs), and diesel particulate matter (DPM) from construction.
 - 1. The Tribe shall control criteria pollutants and GHG emissions by requiring all diesel-powered equipment be properly maintained and minimizing idling time to five minutes when construction equipment is not in use, unless per engine manufacturer's specifications or for safety reasons more time is required. Since these emissions would be generated primarily by construction equipment, machinery engines shall be kept in good mechanical condition to minimize exhaust emissions. The Tribe shall employ periodic and unscheduled inspections to accomplish the above mitigation.

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- 2. Require all construction equipment with a horsepower rating of greater than 50 be equipped with diesel particulate filters, which would reduce approximately 85 percent of DPM.
- 3. Require all construction equipment with a horsepower rating of greater than 50 be equipped with at least California Air Resources Board (CARB) rated Tier 3 engines, and if practical and available, Tier 4 engines.
- 4. Require the use of low reactive organic gases (ROG) (250 grams per liter or less) for architectural coatings to the extent practicable.
- 5. Environmentally preferable materials, including recycled materials, shall be used to the maximum extent practical for construction of facilities.

5.4.2 OPERATION AND CLIMATE CHANGE

As shown in **Table 5-2** mitigated operational emissions would continue to exceed CEQ RPs for ROG and NOx, Therefore, the following mitigation is recommended for Alternatives A through F:

TABLE 5-2
MITIGATED OPERATIONAL EMISSIONS – CEQ REFERENCE POINT

	Criteria Pollutants						
Alternatives	ROG	NOx	СО	SOx	PM ₁₀	PM _{2.5}	
	tons per year						
Alternative A	71.56	52.38	215.45	0.68	49.58	13.84	
Alternative B	53.15	39.15	162.17	0.51	37.37	10.41	
Alternative C	70.83	51.68	220.97	0.65	47.39	13.22	
Alternative D	71.56	52.38	215.03	0.68	49.58	13.84	
Alternative E	53.15	39.15	162.17	0.51	37.37	10.41	
Alternative F	72.46	52.81	215.38	0.69	49.61	13.87	
CEQ RPs	25	25	N/A	100	N/A	100	
Exceed CEQ RPs	Yes	Yes	N/A	No	N/A	No	

Notes: N/A = Not Applicable; CEQ RPs are not applicable due to attainment status (Refer to **Section 3.4**).

Less mitigation for operational ROG and NO_x emissions may be needed if a newer vehicle emissions factor model becomes available during the conformity determination process and updated modeling shows fewer ROG and/or NO_x emissions than previously estimated (refer to Section 5.4.2.C.10 below). Source: CalEEMod, 2010.

These values would result from implementation of all listed mitigation measures.

- C. The Tribe shall reduce emissions of criteria air pollutants and GHGs during operation through one or more of the following measures, as appropriate:
 - 1. The Tribe shall use clean fuel vehicles in the vehicle fleet where practicable, which would reduce criteria pollutants and GHG emissions within the Sacramento metropolitan region.
 - 2. The Tribe shall provide preferential parking for vanpools and carpools, which would reduce criteria pollutants and GHGs.

- The Tribe shall use low-flow appliances and utilize recycled water to the extent practicable.
 The Tribe shall use drought-tolerant landscaping and provide "Save Water" signs near water faucets.
- 4. The Tribe shall control criteria pollutants, GHG, and DPM emissions during operation by requiring all diesel-powered vehicles and equipment be properly maintained and minimizing idling time to five minutes at loading docks when loading or unloading food, merchandise, etc. or when diesel-powered vehicles or equipment are not in use, unless per engine manufacturer's specifications or for safety reasons more time is required. The Tribe shall employ periodic and unscheduled inspections to accomplish the above mitigation.
- 5. The Tribe shall use energy-efficient lighting, which would reduce indirect criteria pollutants and GHG emissions. Using energy-efficient lighting would reduce the project's energy usage, thus reducing the project's indirect GHG emissions.
- 6. The Tribe shall install recycling bins throughout the hotel and casino for glass, cans, and paper products. Trash and recycling receptacles shall be placed strategically outside to encourage people to recycle.
- 7. The Tribe shall plant trees and vegetation on-site or fund such plantings off-site. The addition of photosynthesizing plants would reduce atmospheric carbon dioxide (CO₂), because plants use CO₂ for elemental carbon and energy production. Trees planted near buildings would result in additional benefits by providing shade to the building, thus reducing heat absorption, reducing air conditioning needs, and saving energy.
- 8. The Tribe shall use energy-efficient appliances in the hotel and casino.
- 9. The Tribe shall purchase 27,296 metric tons of GHG emission reduction credits (ERCs) for Alternatives A and D. 13,375 metric tons of GHG ERCs shall be purchased if Alternative B or E is implemented. If Alternative C is implemented, then the Tribe shall purchase 25,771 metric tons of GHG ERCs. If Alternative F is implemented, then the Tribe shall purchase 28,275 tons of GHG ERCs. As an alternative to or in combination with purchasing the above GHG emission reduction credits, the Tribe shall implement renewable energy project(s), which may include but are not limited to solar power, wind energy, and/or other form(s) of renewable energy. The reduction in emissions from implementation of renewable energy and/or the purchase of ERCs would reduce project-related GHG emissions to below the CEQ RP of 25,000 metric tons of CO₂e.
- 10. The Tribe shall purchase 72 tons of ROG and 53 tons of nitrogen oxides (NO_x) ERCs for Alternatives A and D. Alternative B or E would require the purchase of 54 tons of ROG and 40 tons of NO_x ERCs. If Alternative C is implemented the Tribe shall purchase 71 tons of ROGs and 52 tons of NO_x ERCs and if Alternative F is implemented the Tribe shall purchase 72 tons of ROG and 53 tons of NO_x ERCs. Because the air quality effects are associated with operation of the casino-resort and not with construction of the facility, real, surplus,

permanent, quantifiable, and enforceable ERCs will be purchased prior to the opening day of the casino-resort. With the purchase of the ERCs the project would conform to the applicable SIP and result in a less than adverse impact to regional air quality. As an alternative to or in combination with purchasing the above emission reduction credits the Tribe shall implement one or more of the following measures which would reduce NO_x and ROG emissions to 25 tons per year below the *CEQ RP* of 25 tons per year. Credits shall be purchased within the Sacramento or San Joaquin air districts.

- a. Purchase low emission buses to replace older municipal or school buses used within the Sacramento Valley Air Basin.
- b. Implement ride sharing programs at the project site and/or within the Sacramento Valley Air basin.
- c. Use 100 percent electric vehicles at the project site.
- d. Purchase hybrid vehicles to replace existing governmental fleet vehicles within the Sacramento Valley Air Basin.
- e. Implement other feasible mitigation measures to reduce project-related NO_x and ROG emissions.
- f. The Tribe shall provide a bus driver lounge and adopt and enforce an anti-idling ordinance for buses, which will discourage bus idling during operation of the project.

5.4.3 CUMULATIVE

Table 5-3 shows mitigated cumulative emissions. With the implementation of Mitigation Measure 5.4.3 C.10, cumulative year 2035 emissions would be below the applicable CEQ RPs for ROG and NO_x.

TABLE 5-3
CUMULATIVE 2035 MITIGATED OPERATIONAL EMISSIONS – CEQ REFERENCE POINT

	Criteria Pollutants					
Alternatives	ROG	NOx	СО	SOx	PM ₁₀	PM _{2.5}
	tons per year					
Alternatives A and D	50.96	26.90	136.96	0.70	50.45	14.00
Alternatives B and E	36.88	19.49	99.32	0.51	37.31	10.33
Alternative C	47.42	24.99	129.27	0.63	45.31	12.57
Alternative F	51.22	26.78	132.41	0.68	49.61	13.79
CEQ RPs	25	25	N/A	100	N/A	100
Exceed CEQ RPs	Yes	Yes	N/A	No	N/A	No

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Notes: N/A = Not Applicable; CEQ RPs are not applicable due to attainment status

(Refer to **Section 3.4**). Source: CalEEMod, 2010.

5.5 BIOLOGICAL RESOURCES

5.5.1 FEDERALLY LISTED AND OTHER SENSITIVE SPECIES

Giant Garter Snake (GGS)

Twin Cities Site (Alternatives A, B and C)

- A. Avoidance of potential GGS habitat along Drainages 1 and 3 shall include placement of significant setbacks of not less than 250 feet around potentially suitable aquatic habitat features (such as seasonal wetlands and non-impacted channels along Drainages 1 and 3) using orange construction fencing prior to commencement of construction activity. No staging of materials or equipment, construction personnel, or other construction activity shall occur within the setback areas. The United States Fish and Wildlife Service (USFWS) guidelines for GGS avoidance and minimization shall be followed.
- B. A qualified biologist shall conduct a preconstruction survey to assess potential presence of GGS prior to the onset of construction activities along Drainage 2. This preconstruction survey shall occur during the appropriate identification period for GGS (May 1 through October 1). This preconstruction survey shall occur no more than 24-hours prior to the start of construction, if construction is scheduled to start during this period; however, if the construction activities stop on the site for a period of two weeks or more, then an additional pre-construction survey shall be conducted no more than 24-hours prior to the start of construction. If no GGS are found during the preconstruction survey, no further action is required regarding this species.
- C. If GGS are identified on the Twin Cities site during the preconstruction survey or during construction activities, the USFWS shall be notified immediately and no construction activity shall occur within 50 feet of the drainage. If found on-site, the GGS shall be encouraged to leave the identified area or an USFWS-approved biologist shall move the GGS to one of the protected areas (Drainage 1 or Drainage 3). The move shall be consistent with the USFWS approved GGS Move Plan which shall be developed prior to any grading activity on-site and approved by the USFWS.
- D. A qualified biologist shall conduct habitat sensitivity training related to GGS for project contractors and personnel and shall monitor construction during initial grading activities within the Twin Cities site. Under this program, workers shall be informed about the presence of GGS and habitat associated with the species and that unlawful take of the animal or destruction of its habitat is not permitted. Prior to construction activities, a qualified biologist shall instruct construction personnel about: (1) the life history of the giant garter snake; (2) the importance of wetlands and seasonally flooded areas to the GGS; (3) sensitive areas, including those identified on-site, and the importance of maintaining the required setbacks and detailing the limits of the construction area. Documentation of this training shall be maintained on site.

Historic Rancheria Site (Alternatives D and E)

Additional mitigation specific to the Historic Rancheria site includes the following measure:

E. Wetland habitat on-site shall be avoided to the degree feasible. Unavoidable impacts shall be mitigated by the purchase of credits at a United States Army Corps of Engineers (USACE) approved mitigation bank, per the terms of an applicable Section 404 permit.

Special Status Branchiopods

Twin Cities Site (Alternatives A, B and C)

- F. Potential Vernal Pool Fairy Shrimp (VPFS) and Vernal Pool Tadpole Shrimp (VPTS) habitat shall be avoided by development, and a 250-foot setback shall be implemented around the on-site wetland/pond. This aquatic habitat and its 250-foot buffer shall be clearly marked using orange construction fencing. Fencing shall remain in place throughout the duration of construction on the Proposed Project.
- G. No staging of materials or equipment or other construction activity shall occur within the setback areas.
- H. A qualified biologist shall conduct habitat sensitivity training related to VPFS and VPTS for project contractors and personnel and shall monitor construction during initial grading activities.
- I. Should VPFS or other listed federal species be detected within the construction footprint, grading activities shall halt, and the USFWS shall be consulted. No grading activities shall commence until USFWS authorizes the re-initiation of grading activities.

Historic Rancheria Site (Alternatives D and E)

Additional mitigation specific to the Historic Rancheria site includes the following measure:

J. Should full avoidance of VPFS or VPTS habitat by at least 250 feet be infeasible the Tribe shall initiate formal consultation with the USFWS, and shall follow the terms of that consultation and Biological Opinion (BO), which may include the purchase of credits at a USFWS approved mitigation bank.

California Tiger Salamander (CTS)

All Sites

K. Avoidance of potential CTS habitat shall occur congruently as part of mitigation implementation for other species including VPTS, VPFS, and GGS as discussed elsewhere in this section. Placement of 50-foot setbacks and orange fencing around potentially suitable aquatic habitat features as described for other species will also be suitable to for protection of CTS. No additional mitigation measures are required for the CTS as this species is not anticipated to be

- present on site. No staging of materials or equipment or other construction activity shall occur within the setback areas.
- L. A qualified biologist shall conduct habitat sensitivity training related to CTS for project contractors and personnel and shall monitor construction during initial grading activities within the project site.
- M. Should avoidance of CTS be infeasible, the qualified biologist will prepare a CTS movement and mitigation plan and submit it to USFWS. Appropriate action may include allowing any identified CTS to passively exit the project site prior to work resuming or other mitigation which is consistent with the BO issued for the site.

Central Valley Winter-Run Chinook, Central Valley Spring-Run Chinook, and Steelhead Trout

Historic Rancheria Site (Alternatives D and E)

The following measure to protect both listed and unlisted runs of anadromous species shall be implemented:

N. Discharge of treated wastewater to the Cosumnes River will require an NPDES permit.

Continued water quality monitoring will be required to ensure the riparian corridor will not be impaired by water discharged to the river.

Valley Elderberry Longhorn Beetle (VELB)

Twin Cities and Historic Rancheria Sites (Alternatives A, B, C, D, and E)

VELB have the potential to occur within elderberry shrubs found on the Historic Rancheria Site in the greatest concentration along the northern levee, and an elderberry was found along Drainage 3 on the Twin Cities site. The protection provided to the riparian zone along Drainage 3 to protect special status branchiopods is sufficient to protect VELB; therefore, no further mitigation is required on the Twin Cities site. Effects to VELB on the Historic Rancheria site shall be minimized by implementing avoidance measures as follows:

- O. Elderberry host shrubs shall be protected with a 100-foot buffer and shall be marked using brightly colored construction fencing to ensure full avoidance. If work is required within 100 feet of an elderberry shrub, the buffer may be reduced to as little as 25 feet following consultation with the USFWS. An on-site construction monitor will be required with the reduced buffer.
- P. No staging of materials or work shall occur within the buffer area.

- Q. If work will occur within 25 feet of an elderberry shrub, then full mitigation for take may be required, including replanting consistent with the terms of the USFWS guidelines or purchasing credits will from a USFWS-approved mitigation bank.
- R. Worker training shall occur prior to the commencement of construction to instruct employees on the identification of VELB and avoidance measures for both sites.

California Red-Legged Frog (CRLF)

Historic Rancheria Site (Alternatives D and E)

S. Implementation of the buffer areas along the Cosumnes River as described in **Section 5.5.2**. This buffer will be supplemented by any additional terms set by the USFWS following formal consultation for the Historic Rancheria site. The tribe shall implement any other measures required in a BO issued for this site that will reduce the impact to CRLF to a less than significant level.

Nesting Raptors and Migratory Birds

All Sites

- T. A pre-construction survey for nesting migratory birds and raptors shall be conducted within 500 feet of the proposed construction areas if initiation of clearing activities is scheduled to occur during the nesting period (March 1 to September 30). The pre-construction survey shall be conducted within 14 days prior to initiation of construction activity.
- U. The qualified biologist shall document and submit the results of the pre-construction survey within 30 days following the survey. The documentation shall include a description of the methodology including dates of field visits, the names of survey personnel, a list of references cited and persons contacted, and a map showing the location(s) of any bird nests observed on the project site. If no active nests are identified during the pre-construction survey, then no further mitigation is required. If active migratory bird nests are identified, a qualified biologist shall establish an appropriate buffer around the nest based on the species identified to ensure no disturbance will occur until a qualified biologist has determined the young have fledged. No active nests shall be disturbed without a permit or other authorization from the USFWS.
- V. The following measures shall be implemented to minimize the effects of lighting and glare on birds and other wildlife:
 - Downcast lights shall be installed with top and side shields to reduce upward and sideways illumination to reduce potential disorientation affects from non-directed shine to birds and wildlife species.

2. As many exterior and interior lights (in rooms with windows) as practicable, consistent with public safety concerns, shall be turned off during the peak bird migration hours of midnight to dawn to reduce potential collisions of migratory birds with buildings.

5.5.2 WETLANDS AND WATERS OF THE U.S.

The following measures are recommended to minimize or avoid potential impacts to wetlands and waters of the U.S. on the Twin Cities and Historic Rancheria sites:

- W. Prior to the start of construction on any site, a formal Jurisdictional Delineation shall be conducted and the results of that survey shall be verified by the USACE. To ensure no adverse effects, wetlands and jurisdictional drainage features shall be avoided, fenced, and excluded from activity. Fencing shall be located as far as feasible from the edge of wetlands and riparian habitats and installed prior to any construction. The fencing shall remain in place until all construction activities on the site have been completed.
- X. Construction activities within 50 feet of any USACE jurisdictional features identified in the formal delineation process shall be conducted during the dry season to minimize erosion.
- Y. Staging areas shall be located away from the areas of wetland habitat that are fenced off. Temporary stockpiling of excavated or imported material shall occur only in approved construction staging areas. Excess excavated soil shall be used on site or disposed of at a regional landfill or other appropriate facility. Stockpiles that are to remain on the site through the wet season shall be protected to prevent erosion (e.g. with tarps, silt fences, or straw bales).
- Z. Standard precautions shall be employed by the construction contractor to prevent the accidental release of fuel, oil, lubricant, or other hazardous materials associated with construction activities into jurisdictional features. A contaminant program shall be developed and implemented in the event of release of hazardous materials.
- AA. If impacts to waters of the U.S. and wetland habitat are unavoidable, (or in the unlikely event that Drainage 2 on the Twin Cities Site is determined to be jurisdictional), these features shall be mitigated by creating or restoring wetland habitats either on-site or at an appropriate off-site location, or by the purchase of approved credits in a wetland mitigation bank approved by the USACE. A USACE Section 404 permit shall be obtained prior to any discharge into jurisdictional features. Compensatory mitigation shall occur at a minimum of 1:1 ratio or as required by the USACE and USEPA.
- BB. An NPDES General Construction Permit as required in Mitigation Measure 5.2 A will provide additional protection to wetlands and waters and the fish and wildlife species which depend on them.

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CC. If an NPDES permit is required on the Historic Rancheria Site for the WWTP, consistent with Mitigation Measure 5.3 D, it will be issued by the USEPA and will further ensure the protection of wetland and waters of the US and the fish and wildlife species which depend on them.

5.5.3 MITIGATION FOR OFF-SITE ROAD IMPROVEMENTS

All alternatives require off-site road improvements. Biological mitigation measures specified above shall also apply to off-site road improvements as appropriate. Additionally, the following mitigation measures are recommended to minimize or avoid potential impacts to biological and water features for all alternatives.

- DD. Once an alternative has been selected, a formal Jurisdictional Delineation shall be conducted for all areas of potential disturbance from recommended off-site road improvements. The results of the delineation shall be verified by the USACE and a Section 404 permit shall be obtained prior to any disturbance of jurisdictional waters of the U.S. Refer to **5.5.2** for more details.
- EE. If any previously unknown federal or state listed species or habitats are discovered during the preconstruction or construction phases of off-site road improvements, a qualified biologist shall be consulted to ensure that potential impacts are eliminated or mitigated. Refer to **5.5.1** for more details about species-specific mitigation measures.

5.6 CULTURAL AND PALEONTOLOGICAL RESOURCES

The following mitigation measures are recommended for Alternatives A, B, C, D, E, and F:

- A. In the event of inadvertent discovery of prehistoric or historic archaeological resources during construction-related earth-moving activities, all such finds shall be subject to Section 106 of the National Historic Preservation Act as amended (36 CFR 800), and the BIA shall be notified. Specifically, procedures for post-review discoveries without prior planning pursuant to 36 CFR 800.13 shall be followed. All work within 50 feet of the find shall be halted until a professional archaeologist meeting the Secretary of the Interior's qualifications (36 CFR 61) can assess the significance of the find. If any find is determined to be significant by the archaeologist, then representatives of the Tribe shall meet with the archaeologist to determine the appropriate course of action, including the development of a Treatment Plan, if necessary. All significant cultural materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional archaeologist according to current professional standards.
- B. In the event of inadvertent discovery of paleontological resources during construction-related earth-moving activities, all such finds shall be subject to Section 101 (b)(4) of NEPA (40 CFR 1500 1508), and the BIA shall be notified. All work within 50 feet of the find shall be halted

until a professional paleontologist can assess the significance of the find. A qualified professional paleontologist shall be retained to assess the find. If the find is determined to be significant by the paleontologist, then representatives of the BIA shall meet with the paleontologist to determine the appropriate course of action, including the development of an Evaluation Report and/or Mitigation Plan, if necessary. All significant paleontological materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional paleontologist according to current professional standards.

- C. If human remains are discovered during ground-disturbing activities on Tribal lands, the Tribe, BIA, and County Coroner shall be contacted immediately. No further disturbance shall occur until the Tribe, BIA, and County Coroner have made the necessary findings as to the origin and disposition of the remains. If the remains are determined to be of Native American origin, the BIA representative and tribal official(s) shall notify a Most Likely Descendant (MLD). The MLD is responsible for recommending the appropriate disposition of the remains and any grave goods.
- D. In the event that off-site traffic mitigation improvements are implemented, detailed plans for those improvements, including limits of construction, shall be developed. Prior to construction, cultural resources record searches and archaeological or architectural surveys shall be completed. Any buildings or structures over 50 years old that may be affected by the required improvements, once they are defined in detail, shall be identified. All significant resources shall be avoided if possible, and if not, a mitigation plan prepared by a qualified archaeologist or architectural historian shall be implemented.

5.7 SOCIOECONOMICS

The following mitigation measures are recommended for Alternatives A, B, C, D, E and F, with paragraphs A and B below subject to specific negotiations between the Tribe and local governments:

- A. The Tribe shall make in-lieu payments adequate to replace revenues lost by Sacramento County due to reduced property taxes received by the County from those land parcels taken into trust. The amount of the payments shall be adjusted to take into account payments identified in **Section 5.10** for various municipal services.
- B. Payments made pursuant to local agreements between the Tribe and local governments, including Sacramento County, and/or the City of Galt, and/or the City of Elk Grove, would be used to provide support for public services (including law enforcement), community benefits, and utilities.

- C. The Tribe shall contribute no less than \$50,000 annually to a program that treats problem gamblers. In order to maximize the effectiveness of the payments, the organization that receives the payments for problem gambling treatment must serve the Sacramento County region and be accessible to County residents.
- D. The Tribe shall prominently display (including on any automatic teller machines (ATMs) located on-site) materials describing the risk and signs of problem and pathological gambling behaviors. Materials shall also be prominently displayed (including on any ATMs located on-site) that provide available programs for those seeking treatment for problem and pathological gambling disorders, including but not limited to a toll-free hotline telephone number.
- E. The Tribe shall train employees to recognize domestic violence and sexual assault situations, display domestic violence hotline numbers, and work with local agencies in domestic violence and sexual assault prevention.
- F. The Tribe shall conduct annual customer surveys in an attempt to determine the number of problem and pathological gamblers and make this information available to state or federal gaming regulators upon request.
- G. The Tribe shall undertake responsible gaming practices that at a minimum require that employees be educated to recognize signs of problem gamblers, that employees be trained to provide information to those seeking help, and that a system for voluntary exclusion be made available.
- H. ATMs shall be not be visible from gaming machines and gaming tables.

5.8 TRANSPORTATION

It is recommended that the Tribe pay a full share of the cost of implementing recommended mitigation measures when LOS is acceptable without the addition of project trips. An exception to this general recommendation would occur in situations where the project's contribution to operation of an intersection may be relatively small, but sufficient to cause an intersection that is on the verge of operating unacceptably to operate at an unacceptable LOS. In such cases, the Tribe shall be responsible for its fair share of the costs of mitigation caused by the added project trips generated, calculated as described in the next paragraph and/or set out in **Section 5.8.3**.

Where transportation infrastructure is shown as having an unacceptable LOS with the addition of traffic from the project alternatives (and caused at least in part from project traffic), the Tribe shall pay for a fair share of costs for the recommended mitigation (including right-of-way and any other environmental mitigation). In such cases, the Tribe shall be responsible for the incremental impact that the added project trips generate, calculated as a percentage of the costs involved for construction of the mitigation measure.

Fair-share proportion represents the fair-share percentage calculated using the methodology presented in the Caltrans Guide for the Preparation of Traffic Impact Studies (2002). The Tribe shall make fair share contributions available prior to initiation of road improvement construction.

5.8.1 CONSTRUCTION

Recommended mitigation measures to minimize transportation impacts associated with construction of all alternatives include:

- A. A traffic management plan shall be prepared in accordance with standards set forth in the Manual on Uniform Traffic Control Devices for Streets and Highways (FHWA, 2003). The traffic management plan shall be submitted to each affected local jurisdiction and/or agency. Also, prior to construction, the contractor shall coordinate with emergency service providers to avoid obstructing emergency response service. Police, fire, ambulance, and other emergency response providers shall be notified in advance of the details of the construction schedule, location of construction activities, duration of the construction period, and any access restrictions that could impact emergency response services. Traffic management plans shall include details regarding emergency service coordination. Copies of the traffic management plans shall be provided to all affected emergency service providers.
- B. Flagging, performed in consultation with the California Highway Patrol (CHP), California Department of Transportation (Caltrans), and the Sacramento County Sheriff's Department (SCSD), shall be provided when necessary to assist with construction traffic control.
- C. Transport of construction material shall be scheduled outside of the area-wide commute peak hours.
- D. Where feasible, lane closures or obstructions associated with construction of the project shall be limited to off-peak hours to reduce traffic congestion and delays.
- E. For all alternatives, roadways subject to heavy fill truck traffic shall be assessed by an independent third party consultant prior to the start of construction and following the completion of construction. If the third party determines that roadway deterioration has occurred as a result of casino construction, the Tribe shall pay to have the affected roadway(s) resurfaced to restore the pavement to at least pre-construction condition, unless the resurfacing is already planned to occur within a year or sooner in conjunction with other planned or proposed roadway improvements.

5.8.2 OPERATION

The following mitigation measure is recommended for Alternatives A through F:

F. The Tribe shall enter into an agreement with Sacramento County to fund its fair-share contribution toward future vicinity roadway maintenance and improvements.

Twin Cities Site (Alternatives A, B, and C)

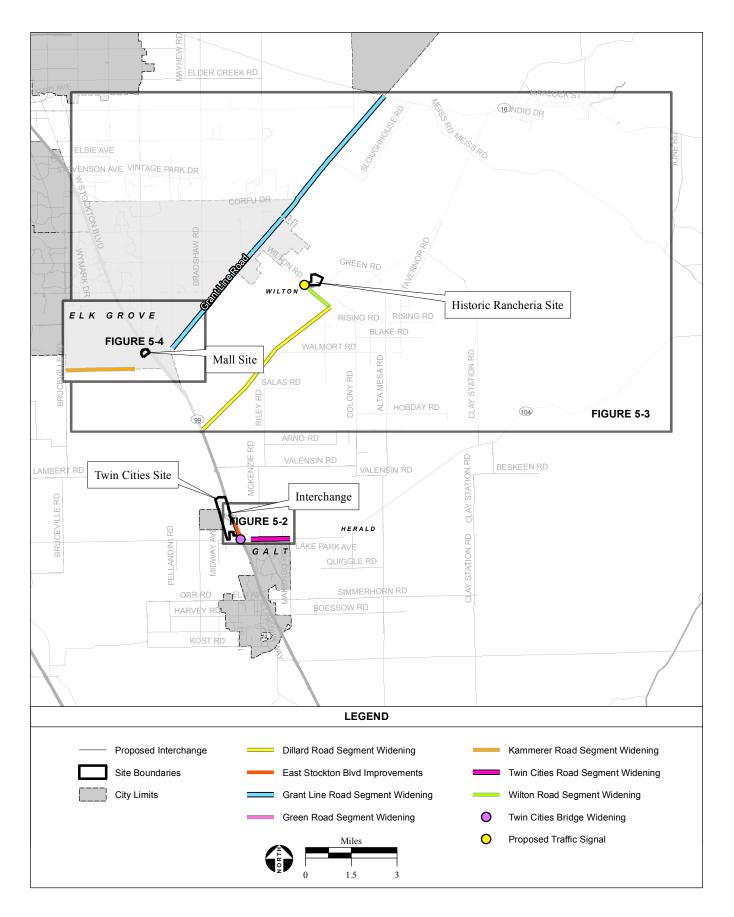
The following mitigation measures are recommended for Alternatives A, B, and C, as shown on **Figure 5-1**:

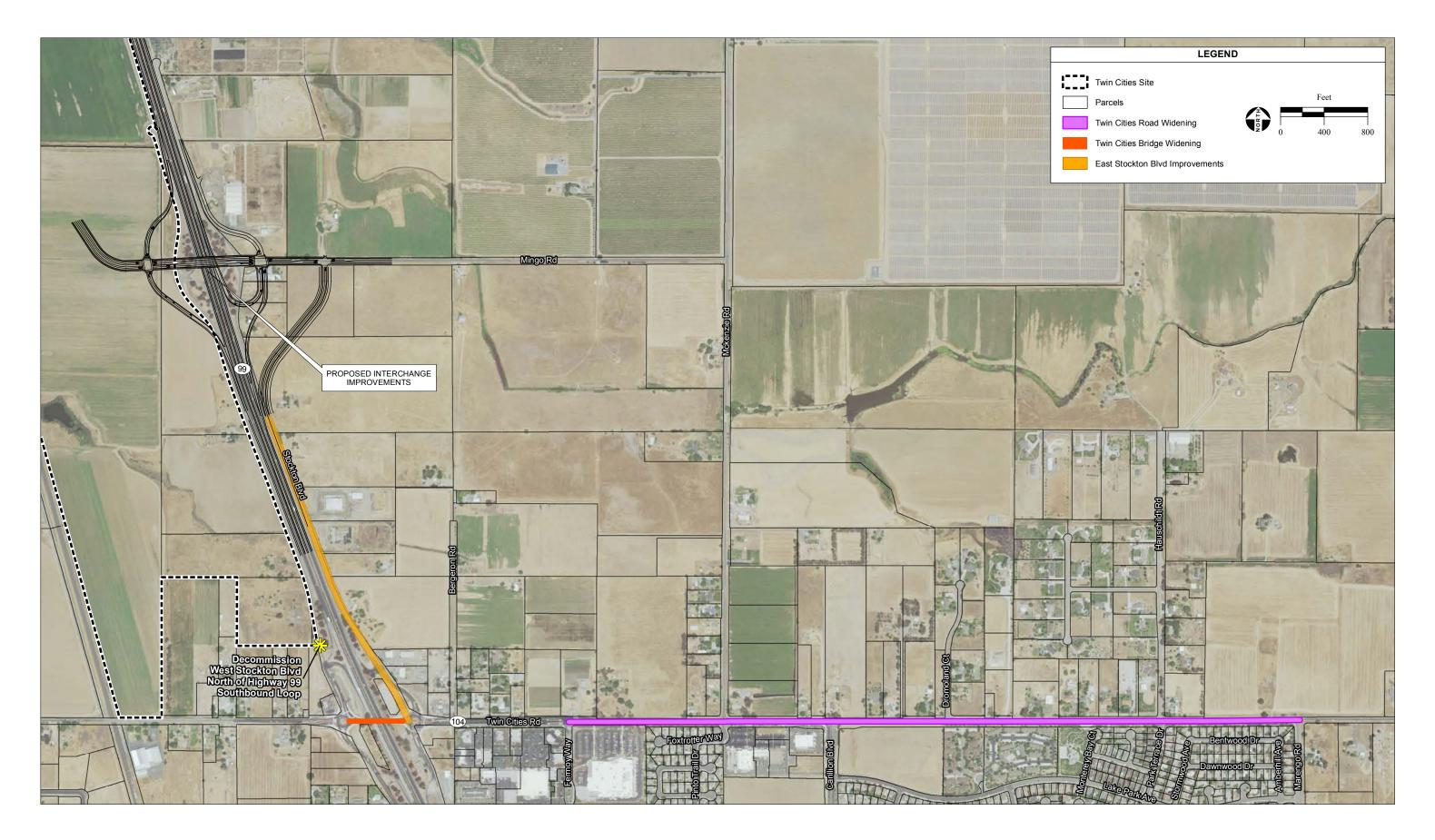
- G. **Hwy 99/Mingo Road Interchange.** The existing interchange shall be reconstructed to include a diamond interchange with a new four-lane bridge over Hwy 99 with sidewalks and shoulders/bike lanes; a signalized intersection at the Hwy 99 SB ramps and Mingo Road, located 400 feet west of the Hwy 99 mainline; Hwy 99 NB loop on-ramp; and a signalized intersection at the Hwy 99 NB ramps and Mingo Road connection
- H. East Stockton Boulevard. East Stockton Boulevard shall be realigned in the vicinity of the Hwy 99/Mingo Road interchange. The north leg of East Stockton Boulevard would be aligned to connect with Mingo Road at the signalized Hwy 99 NB ramps/Mingo Road intersection, and the south leg of East Stockton Boulevard would be aligned to connect with Mingo Road at a new stop-controlled intersection located a minimum of 400 feet east of the Hwy 99 NB ramps intersection. The proposed new alignment of East Stockton Boulevard shall be reconstructed to Sacramento County's Improvement Standards where feasible within existing County right-of-way.
- I. West Stockton Boulevard/Site Access. West Stockton Boulevard shall be closed between Mingo Road and just north of the Hwy 99 SB hook ramps at Twin Cities Road. Mingo Road would continue northwest past the Hwy 99 SB ramps/Mingo Road intersection to provide primary access to the site.

While the currently proposed Hwy 99/Mingo Road interchange design concept includes signalized intersections at the NB and SB Hwy 99 ramp terminals, future project development efforts may include consideration of roundabouts or other traffic control options as part of an Intersection Control Evaluation (ICE), as required by Caltrans policy.

The following mitigation measure is recommended for Alternative C, as shown on **Figure 5-2**:

J. **Twin Cities Road Bridge Widening.** The Tribe shall be responsible for widening the Twin Cities Road Bridge over Hwy 99 from two to four lanes and reconstructing the single-lane roundabouts at East Stockton Boulevard and West Stockton Boulevard as two-lane roundabouts.



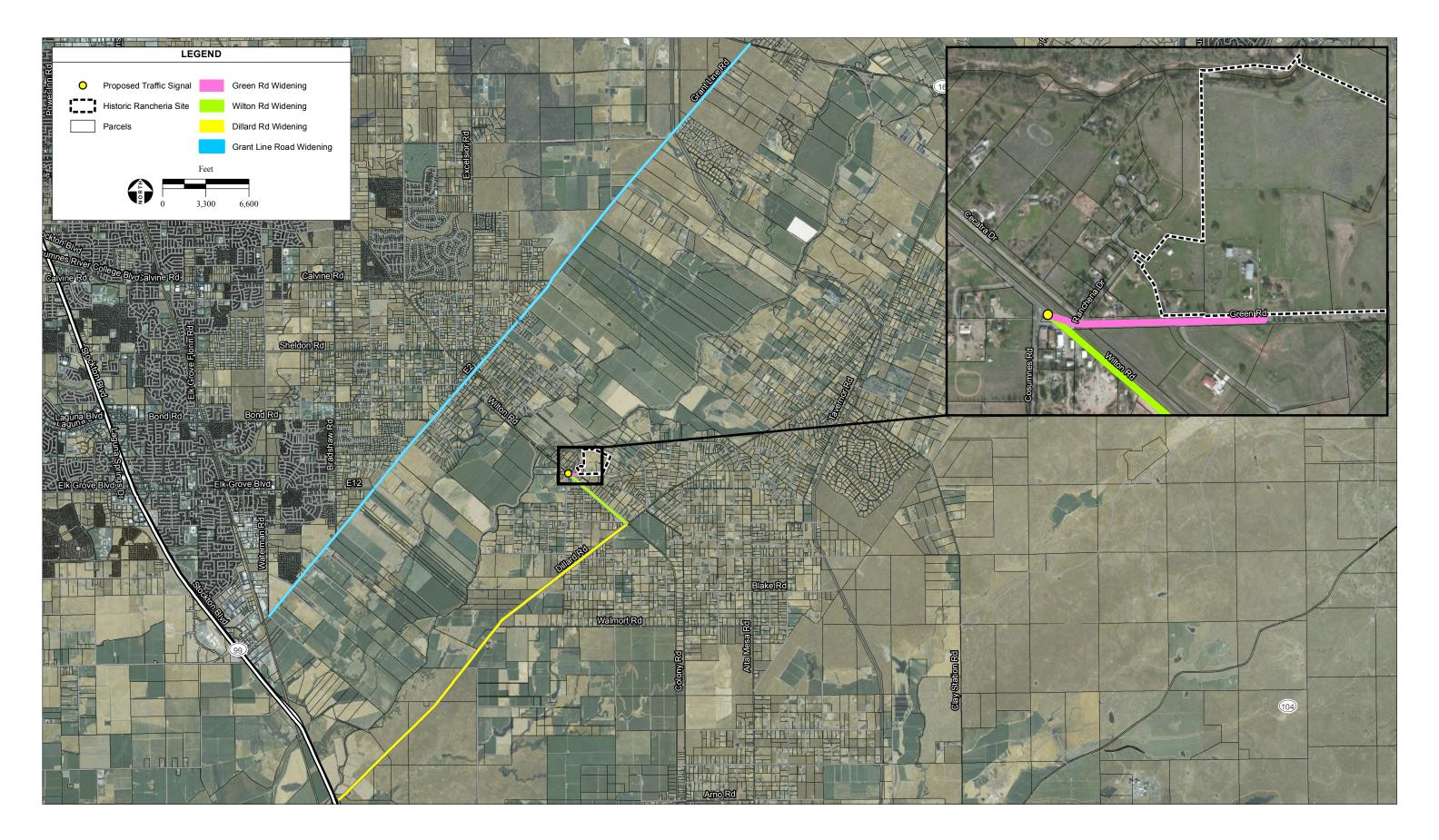


K. Twin Cities Road Widening. The Tribe shall be responsible for construction of or payment of the City of Galt's Transportation Capital Improvement Program (TCIP) fee towards the cost to construct the planned widening of Twin Cities Road to four lanes between Fermoy Way and Marengo Road.

Historic Rancheria Site (Alternatives D and E)

The following mitigation measures are recommended for Alternatives D and E, as shown on **Figure 5-3**:

- L. **Grant Line Road/East Stockton Boulevard Intersection.** The SB approach shall be restriped to provide one left-turn lane, one shared through/right lane, and one right-turn lane.
- M. **Grant Line Road/Bond Road Intersection.** The EB and WB approaches shall be widened to provide two through lanes.
- N. **Wilton Road/Green Road Intersection.** Green Road and Cosumnes Road shall be realigned to form a single-point, signalized intersection with protected left-turn signal phasing for NB/SB approaches and permitted left-turn phasing for EB/WB approaches. The WB approach shall be widened to provide one shared through-left lane and one right-turn lane and a WB right-turn overlap signal phase shall be provided during the SB left-turn phase. The SB approach shall be widened to provide two left-turn lanes and one shared through-right lane.
- O. **Grant Line Road/Wilton Road Intersection.** The EB approach shall be widened to provide one left-turn lane, one through lane, and one right-turn lane; and the NB approach shall be widened to provide two left-turn lanes and one shared through-right lane.
- P. **Green Road/Project Driveway 1 Intersection.** Green Road shall be widened to four lanes from Wilton Road to Project Driveway 2. The Green Road/Project Driveway 1 intersection shall be signalized, the EB approach shall be widened to provide one left-turn lane and one through lane, and the SB approach shall be widened to provide one shared left-right turn lane and one right-turn lane.
- Q. **Green Road/Project Driveway 2 Intersection.** The Green Road/Project Driveway 1 intersection shall be signalized, the EB approach shall be widened to provide one left-turn lane and two through lanes, and the SB approach shall be widened to provide one shared left-right turn lane and one right-turn lane.
- R. **Grant Line Road Widening.** Grant Line Road shall be widened to four lanes from Waterman Road to Jackson Road.



- S. **Wilton Road Widening.** Where feasible, Wilton Road shall be widened to four lanes between Grant Line Road and Green Road. The Tribe shall improve Wilton Road from Green Road to Dillard Road, to the County's Improvement Standard with a continuous center turn lane, requiring a 48-foot paved section with 12-foot lanes, a 12-foot two-way left-turn lane, and 6-foot shoulders.
- T. **Dillard Road Improvements.** The Tribe shall improve Dillard Road from Hwy 99 to Wilton Road, to the County's Improvement Standard to include a minimum 36-foot paved section with 12-foot lanes and 6-foot shoulders.

Mall Site (Alternative F)

The following mitigation measures are recommended for Alternative F, as shown on **Figure 5-4**:

- U. **Promenade Parkway/Bilby Road Intersection.** The WB approach shall be widened to provide three left-turn lanes, one through lane, and one right-turn lane; and a NB right-turn overlap signal phase shall be provided during the WB left-turn phase.
- V. **Grant Line Road Widening.** Grant Line Road shall be widened to four lanes from Waterman Road to Bradshaw Road.
- W. **Kammerer Road Improvements.** The Tribe shall pay a fair-share contribution of 6 percent towards future mitigation costs for Kammerer Road improvements.

5.8.3 CUMULATIVE

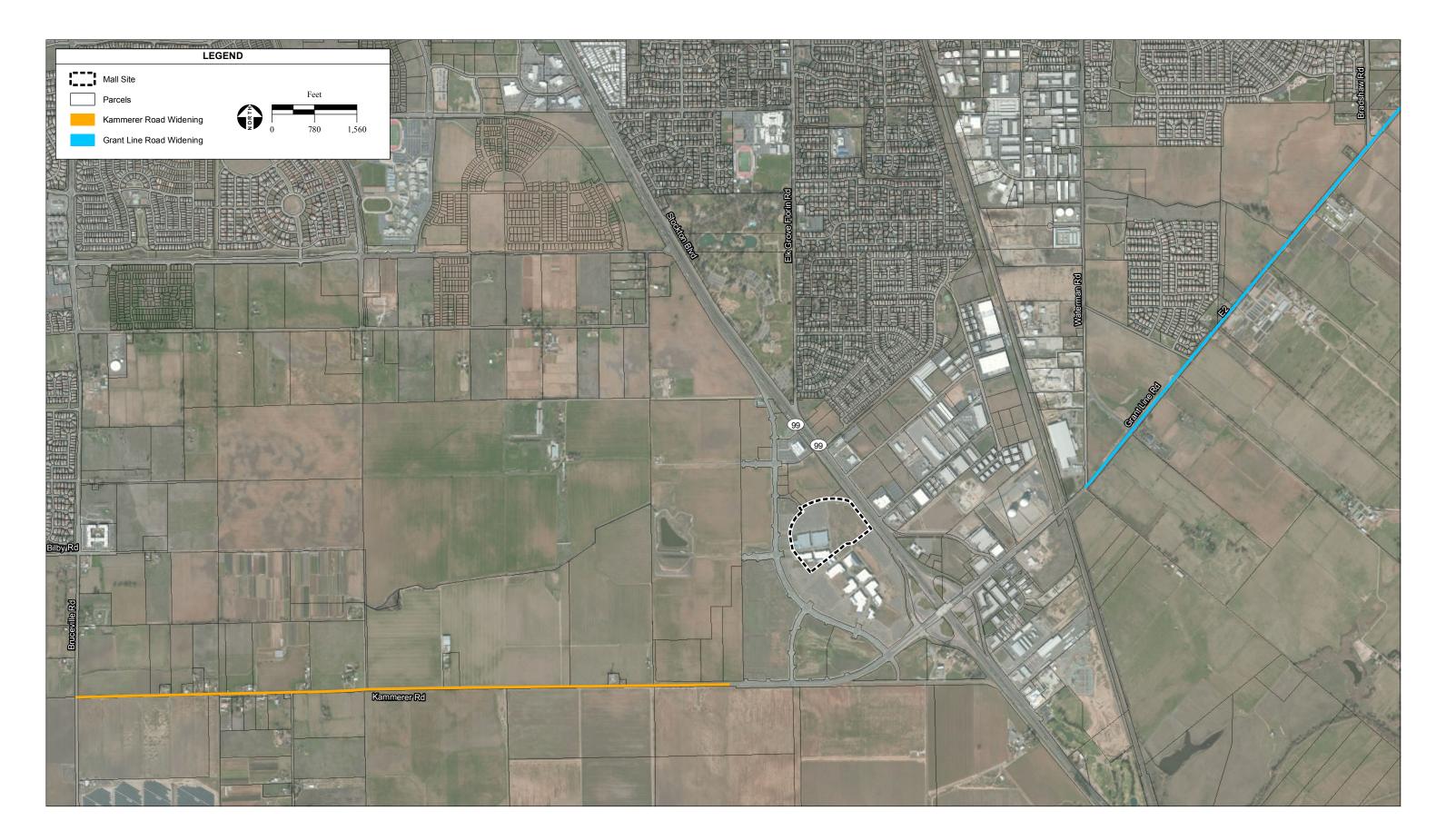
Twin Cities Site (Alternatives A, B, and C)

The following cumulative mitigation measures are recommended for Alternatives A, B, and C:

X. **Interchange, Intersection, and Roadway Improvements.** Implement Mitigation Measures 5.8.2 F through H.

The following cumulative mitigation measure is recommended for Alternative A:

Y. **Grant Line Road/East Stockton Boulevard Intersection.** The SB approach shall be restriped to provide one left-turn lane, one shared through/right lane, and one right-turn lane. The NB/SB signal phasing shall be converted from split to protected left-turn phasing. Traffic signal coordination with adjacent signalized intersections shall be implemented to improve progression along Grant Line Road during weekday PM peak period.



The following cumulative mitigation measure is recommended for Alternative C:

Z. Twin Cities Interchange Improvements. Implement Mitigation Measure 5.8.2 I.

Historic Rancheria Site (Alternatives D and E)

The following cumulative mitigation measures are recommended for Alternatives D and E:

- AA. **Intersection and Roadway Improvements.** Implement Mitigation Measures 5.8.2 K, M through P, R, and S.
- BB. **Promenade Parkway/Kammerer Road Intersection.** Signal timings at the Promenade Parkway/Kammerer Road Intersection shall be optimized.
- CC. **Grant Line Road/East Stockton Boulevard Intersection.** The NB/SB signal phasing shall be converted from split to protected left-turn phasing. Traffic signal coordination with adjacent signalized intersections shall be implemented to improve progression along Grant Line Road during weekday PM peak period.

Mall Site (Alternative F)

The following cumulative mitigation measures are recommended for Alternative F:

- DD. **Intersection Improvements.** Implement Mitigation Measures 5.8.2 T and V.
- EE. **Hwy 99 SB Ramps/Grant Line Road.** The SB approach shall be widened to provide one left-turn lane, one shared left/through/right lane, and two right turn lanes.
- FF. **Promenade Parkway/Kammerer Road.** Signal timings at the Promenade Parkway/Kammerer Road intersection shall be optimized and the width of the raised median at the WB approach shall be reduced to provide a second left-turn lane. A NB right-turn overlap signal phase shall be provided during the WB left-turn phase.
- GG. **Grant Line Road/East Stockton Boulevard.** The SB approach shall be restriped to provide one left-turn lane, one shared through/right lane, and one right-turn lane. The NB/SB signal phasing shall be converted from split to protected left-turn phasing. Traffic signal coordination with adjacent signalized intersections shall be implemented to improve progression along Grant Line Road during weekday PM peak period.

Additionally, while improvement of the Mingo Road interchange would relieve some of the project's contribution towards congestion at the Twin Cities interchange in the year 2035, the project's impacts to other freeway facilities would remain significant. As mitigation for these impacts, the Tribe shall do the following for Alternatives A through F:

HH. Contribute a fair-share funding proportion towards future freeway improvement projects along Hwy 99, to be identified through coordination with Caltrans. Fair-share funding for long term improvements shall be made available prior to the need for the improvements. Funds shall be placed in an escrow account, if necessary, for use by the governmental entity with jurisdiction over the road to be improved so that the entity may design, obtain approvals/permits for, and construct the recommended road improvement. Caltrans is currently working with the City of Elk Grove to establish a subregional mitigation fee program which would cover this portion of the Hwy 99 corridor. Because this program has yet to be adopted, the ultimate fee structure for development project contribution has yet to be confirmed. For reference purposes, the project's fair-share contribution towards future mitigation costs for Hwy 99 freeway improvements within the project vicinity would be 28 percent for Alternative A, 24 percent for Alternative B, 20 percent for Alternative C, 12 percent for Alternative D, 11 percent for Alternative E, and 26 percent for Alternative F.

5.9 LAND USE

HISTORIC RANCHERIA SITE (ALTERNATIVES D AND E)

Mitigation in Section 5.4, Section 5.8, Section 5.11, and Section 5.13 will reduce incompatibilities with neighboring land uses due to air quality, noise, traffic, and aesthetic impacts to less than significant levels.

5.10 PUBLIC SERVICES

5.10.1 OFF-SITE WATER AND WASTEWATER SERVICES

Implementation of the mitigation measure below will minimize potential impacts related to water and wastewater services. This measure is recommended for Alternatives A, B, C, and F.

A. For all off-site options, the Tribe shall enter into a service agreement prior to project operation to reimburse the City of Galt or Elk Grove or the applicable service provider, as appropriate, for necessary new, upgraded, and/or expanded water and/or wastewater collection, distribution, or treatment facilities. This service agreement shall include, but is not limited to, fair share compensation for new, upgraded, and/or expanded water supply and wastewater conveyance facilities necessary to serve development of the selected site, including development of appropriately sized infrastructure to meet anticipated flows. Such improvements shall be sized to maintain existing public services at existing levels. The service agreement shall also include provisions for monthly services charges consistent with rates paid by other commercial users.

5.10.2 SOLID WASTE

Implementation of the mitigation measures below would minimize potential impacts related to solid waste. These measures are recommended for Alternatives A through F.

- B. Construction waste shall be recycled to the fullest extent practicable by diverting green waste and recyclable building materials (including, but not limited to, metals, steel, wood, etc.) away from the solid waste stream.
- C. Environmentally preferable materials, including recycled materials, shall be used to the extent readily available and economically practicable for construction of facilities.
- D. During construction, the site shall be cleaned daily of trash and debris to the maximum extent practicable.
- E. A solid waste management plan shall be developed and adopted by the Tribe that addresses recycling and solid waste reduction on site. These measures shall include, but not be limited to, the installation of a trash compactor for cardboard and paper products, and periodic waste stream audits.
- F. Recycling bins shall be installed throughout the facilities for glass, cans, and paper products.
- G. Trash and recycling receptacles shall be placed strategically throughout the site to encourage people not to litter.
- H. Security guards shall be trained to discourage littering on site.

5.10.3 LAW ENFORCEMENT

Implementation of the mitigation measures below would minimize potential impacts related to law enforcement services. These measures are recommended for Alternatives A, B, D, E, and F.

- I. Parking areas shall be well lit and monitored by parking staff and/or roving security guards at all times during operation. This will aid in the prevention of auto theft and other similar criminal activity.
- J. Areas surrounding the gaming facilities shall have "No Loitering" signs in place, be well lit, and be patrolled regularly by roving security guards.
- K. The Tribe shall provide traffic control with appropriate signage and the presence of peak-hour traffic control staff during special events. This would aid in the prevention of off-site parking.

- L. The Tribe shall conduct background checks of all gaming employees and ensure that all employees meet licensure requirements established by the Indian Gaming Regulatory Act (IGRA) and the Tribe's Gaming Ordinance.
- M. The Tribe shall adopt a Responsible Alcoholic Beverage Policy that shall include, but not be limited to, checking identification of patrons and refusing service to those who have had enough to drink.

The following mitigation measure is recommended for Alternatives A, B, and C.

N. Prior to operation, the Tribe shall enter into agreements to reimburse the City of Galt Police Department and/or the Sacramento County Sheriff's Department for quantifiable direct and indirect costs incurred in conjunction with providing law enforcement services.

The following mitigation measure is recommended for Alternatives D and E.

O. Prior to operation, the Tribe shall enter into agreements to reimburse the Sacramento County Sheriff's Department for quantifiable direct and indirect costs incurred in conjunction with providing law enforcement services.

The following mitigation measure is recommended for Alternative F.

P. Prior to operation, the Tribe shall enter into agreements to reimburse the City of Elk Grove Police Department for quantifiable direct and indirect costs incurred in conjunction with providing law enforcement services.

5.10.4 FIRE PROTECTION AND EMERGENCY SERVICES

Implementation of the mitigation measures below would minimize potential impacts related to fire protection and emergency services.

These measures are recommended for Alternatives A through F.

Q. During construction, any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws. Staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a firebreak.

R. Prior to operation, the Tribe shall enter into a memorandum of understanding (MOU) and/or a service agreement to reimburse the Cosumnes Community Service District Fire Department for additional demands caused by the operation of the facilities on trust property. The agreement shall address any required conditions and standards for emergency access and fire protection systems.

5.10.5 ELECTRICITY, NATURAL GAS, AND TELECOMMUNICATIONS

Implementation of the mitigation measures below shall minimize potential impacts related to electricity, natural gas, and telecommunications.

These measures are recommended for Alternatives A through F:

- S. The Tribe shall contact the Utility Notification Center, which provides a free "Dig Alert" to all excavators (e.g., contractors, homeowners, and others) in the State of California. This call shall automatically notify all utility service providers at the excavator's work site. In response, the utility service providers shall mark or stake the horizontal path of underground facilities, provide information about the facilities, and/or give clearance to dig.
- T. The selected heating, ventilation, and air conditioning (HVAC) system shall minimize the use of energy by means of using high efficiency variable speed chillers, high efficiency low emission steam and/or hot water boilers, variable speed hot water and chilled water pumps, variable air volume air handling units, and air-to-air heat recovery where appropriate.
- U. Energy-efficient lighting shall be installed throughout the facilities. Dual-level light switching shall be installed in support areas to allow users of the buildings to reduce lighting energy usage when the task being performed does not require all lighting to be on. Day lighting controls shall be installed near windows to reduce the artificial lighting level when natural lighting is available. Controls shall be installed for exterior lighting so it is turned off during the day.

The following mitigation measure shall be implemented for Alternatives A, B, C, D, and E:

V. The Tribe shall be responsible for a fair share of costs associated with any relocation of existing Sacramento Municipal Utilities District (SMUD) and/or Pacific Gas and Electric (PG&E) facilities to accommodate the proposed development and traffic improvements. Appropriate funds shall be made available to conduct any necessary relocation and to construct any system upgrades required by the project.

5.11 NOISE

5.11.1 CONSTRUCTION

The following measures are recommended for Alternatives A, B, C, D, E, and F:

- A. Construction using heavy equipment shall not be conducted between 10:00 p.m. and 7:00 a.m.
- B. All engine-powered equipment shall be equipped with adequate mufflers. Haul trucks shall be operated in accordance with posted speed limits. Truck engine exhaust brake use shall be limited to emergencies.
- C. Loud stationary construction equipment shall be located as far away from residential receptor areas as feasible.
- D. All generator sets shall be provided with enclosures.

5.11.2 OPERATION

The following measures are recommended for Alternatives D and E on the Historic Rancheria site:

- E. On-site HVAC equipment shall be shielded to reduce noise.
- F. To the extent feasible, HVAC equipment shall be located the furthest practical distance from neighboring houses along Green Road.
- G. The Tribe shall fund the cost of installation of acoustically-rated, dual pane windows (with a minimum Sound Transmission Class (STC) rating of 30) and acoustically rated doors on the houses within 500 feet facing the noise source(s) to minimize noise effects for residences adjacent to the Historic Rancheria site.
- H. The Tribe shall fund the cost of raised, landscaped berms or solid walls at least 8 feet in height in order to separate sources of unwanted noise from sensitive receptors on adjacent properties within 500 feet. Should a wall be installed, it shall be attractively designed. Adjacent landowners and adjacent governmental jurisdictions shall be consulted with prior to finalizing the design of the berm or wall.
- I. Unnecessary vehicle idling shall be prevented during loading dock operations occurring between the hours of 10:00 PM and 7:00 AM.

5-30

- J. Buses shall not be allowed to idle unnecessarily in areas adjacent to sensitive receptors. Bus parking areas shall also be located as far as feasible from sensitive receptors.
- K. On-site wastewater treatment plant equipment shall be shielded or enclosed.

5.12 HAZARDOUS MATERIALS

The following BMPs are recommended for Alternatives A, B, C, D, E, and F:

- A. Personnel shall follow best management practices (BMPs) for filling and servicing construction equipment and vehicles. BMPs that are designed to reduce the potential for incidents/spills involving the hazardous materials include the following:
 - 1. To reduce the potential for accidental release, fuel, oil, and hydraulic fluids shall be transferred directly from a service truck to construction equipment.
 - 2. Catch-pans shall be placed under equipment to catch potential spills during servicing.
 - 3. Refueling shall be conducted only with approved pumps, hoses, and nozzles.
 - 4. All disconnected hoses shall be placed in containers to collect residual fuel from the hose.
 - 5. Vehicle engines shall be shut down during refueling.
 - 6. No smoking, open flames, or welding shall be allowed in refueling or service areas.
 - 7. Refueling shall be performed away from bodies of water to prevent contamination of water in the event of a leak or spill.
 - 8. Service trucks shall be provided with fire extinguishers and spill containment equipment, such as absorbents.
 - 9. Should a spill contaminate soil, the soil shall be put into containers and disposed of in accordance with local, state, and federal regulations.
 - 10. All containers used to store hazardous materials shall be inspected at least once per week for signs of leaking or failure.
- B. For the Twin Cities site, the Limited Phase II Sampling Plan in **Appendix R** shall be implemented prior to land being taken into trust. If sampling and testing of the identified areas indicates hazardous materials contamination, the contaminated soils and/or groundwater shall be properly removed and/or remediated by qualified professionals consistent with an approved remediation plan.
- C. In the event that contaminated soil and/or groundwater is encountered during construction related earth-moving activities, all work shall be halted until a professional hazardous materials specialist

or other qualified individual assesses the extent of contamination. If contamination is determined to be hazardous, the Tribe shall consult with the USEPA to determine the appropriate course of action, including development of a Sampling and Remediation Plan if necessary. Contaminated soils that are determined to be hazardous shall be disposed of in accordance with federal regulations.

- D. Hazardous materials must be stored in appropriate and approved containers in accordance with applicable regulatory agency protocols.
- E. Potentially hazardous materials, including fuels, shall be stored away from drainages, and secondary containment shall be provided for all hazardous materials stored during construction and operation.

5.13 AESTHETICS

The following mitigation measures are recommended for Alternatives A, B, C, D, E, and F:

- A. Lighting shall consist of limiting pole-mounted lights to a maximum of 25 feet tall.
- B. All lighting shall be high pressure sodium or light-emitting diode (LED) with cut-off lenses and downcast illumination, unless an alternative light configuration is needed for security or emergency purposes.
- C. Placement of lights on buildings shall be designed in accordance with Unified Facilities Criteria (UFC) 3-530-01, Interior, Exterior Lighting, and Controls so as not to cast light or glare offsite. No strobe lights, spot lights, or flood lights shall be used.
- D. Shielding, such as with a horizontal shroud, shall be used in accordance with UFC 3-350-01 for all outdoor lighting so as to ensure it is downcast.
- E. All exterior glass shall be non-reflective low-glare glass.
- F. Screening features and natural elements shall be integrated into the landscaping design of the project to screen the view of the facilities from directly adjacent existing residences.
- G. Design elements shall be incorporated into the project to minimize the impact of buildings and parking lots on the viewshed. These elements include:
 - 1. Incorporation of landscape amenities to complement buildings and parking areas, including setbacks, raised landscaped berms and plantings of trees and shrubs.

Use of earth tones in paints and coatings, and native building materials such as stone.